

CLAIMS

What is claimed is:

Claim 1: An immunochemical assay device, comprising:

- a base member;
- a liquid-flowing layer disposed on the base member; and
- a light-permissible member attached on the liquid-flowing layer, wherein a gap is interposed between the light-permissible member and the liquid-flowing layer to allow flow of an assay liquid sample, and at least an immobilized substance is further disposed on a side of the light-permissible member facing the liquid-flowing layer for binding with a ligand-receptor complex contained in the assay liquid sample to form an assay marker.

Claim 2: The immunochemical assay device of claim 1, wherein the immunochemical assay device is a bioassay card.

Claim 3: The immunochemical assay device of claim 1, wherein the base member and the liquid-flowing layer are made of a material selected from the group consisting of plastics, nitrocellulose, glass fibers, and other materials non-absorptive to liquids.

Claim 4: The immunochemical assay device of claim 1, wherein the assay liquid sample comprises samples and at least one reagent.

Claim 5: The immunochemical assay device of claim 4, wherein the sample is diluted in serial dilutions.

Claim 6: The immunochemical assay device of claim 4, wherein the reagent comprises a secondary antibody serving as a receptor.

Claim 7: The immunochemical assay device of claim 6, wherein the secondary antibody carries at least one antigen binding site and one chromophore.

Claim 8: The immunochemical assay device of claim 1, wherein the light-permissible member is a solid plastic sheetpiece made of polystyrene (PS) material.

Claim 9: The immunochemical assay device of claim 1, wherein the light-permissible member comprises one sheet and a plurality of headrests, wherein each of the headrests is attached to one end of the sheet for supporting the sheet over the liquid-flowing layer.

Claim 10: The immunochemical assay device of claim 9, wherein the headrests are formed as an integral part of the sheet.

Claim 11: The immunochemical assay device of claim 9, wherein the headrest is made of materials selected from a group consisting of an adhesive, a paper, and a plastic film.

Claim 12: The immunochemical assay device of claim 1, wherein the gap has a height smaller than 0.25 mm.

Claim 13: The immunochemical assay device of claim 1, wherein the immobilized

substance is a primary antibody.

Claim 14: The immunochemical assay device of claim 1, wherein the ligand is an assay target contained in the sample.

Claim 15: The immunochemical assay device of claim 14, wherein the target is a pathogen.

Claim 16: The immunochemical assay device of claim 14, wherein the target is a marker protein.

Claim 17: The immunochemical assay device of claim 14, wherein the target is a SARS virus.

Claim 18: The immunochemical assay device of claim 1, wherein the assay marker is a colored band.